The Effects of Service Charges versus Service-included Pricing on Deal Perception

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Abstract

Study participants rated menu prices with an automatic percentage service gratuity as better deals than equivalent service-included prices when the service component of price was below the standard 15 percent tipping rate. However, the reverse was true when the service component of price was above 15 percent. Furthermore, a move from percentage service gratuity toward dollar service gratuity impeded participants' menu price judgment. These findings provide some insights regarding which pricing alternative to tipping should be implemented if and when restaurateurs decide to abandon voluntary tipping.

KEY WORDS: service charge, automatic service gratuity, service-included pricing, price partitioning, price evaluability, surcharge framing

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The vast majority of restaurateurs in the United States rely on tipping as a means of compensating their employees. One recent survey of over a thousand U.S waiters and waitresses found that 95 percent worked at restaurants where tipping is customary (Lynn, 2013). However, tipping is not the only option for paying servers that is available to restaurateurs. In fact, tipping is rare in many countries around the world and there is a growing chorus of people calling for its elimination in the United States (Palmer, 2013; Peterson, 2013; Saelinger, 2013; Wells, 2013).

Restaurants that choose not to allow voluntary tipping of their staff have two alternatives – to add service charges automatically to the bills or to implement service-included menu pricing. Unfortunately, little research has been devoted to help restaurateurs choose between these two options should they decide not to permit tipping. One exception is an article by Lynn & Wang (2013), which reports that restaurants with 15 percent service gratuities built into menu prices, but not those with 15 percent automatic service charges, are perceived as more expensive than those with voluntary tipping. This suggests that service-included prices may increase perceived expensiveness relative to service charges. However, Lynn and Wang did not compare these two options when the service component of price deviates from 15 percent, nor did they examine the effects of these two policies on perceptions of deal value. The literature review and study reported below begin to fill this gap.

THEORY AND HYPOTHESES

Research on information processing has found that when consumers are asked to evaluate a multi-attribute option, the impact of an individual attribute on the overall assessment is often related to its evaluability, that is, the degree of confidence people have in their appraisal of the attribute's attractiveness (Hsee, Loewenstein, Blount, & Bazerman, 1999). This suggests that consumers judging partitioned or separately listed prices for a product (like room rate and resort fee) may overlook or assign less weight to those price components for which they lack comparative standards. We apply this theory and research on price evaluability to consumers' perceptions of the deal value afforded by different alternatives to voluntary tipping. What that application suggests is that the relative size of proposed service charges (or menu price increases) is likely to determine whether service charges or service-included pricing lead to the greatest perceptions of deal value.

In the U.S., fees for restaurant service are established and bounded by the social norm of tipping. This means that restaurant patrons' have a fairly homogenous reference for the service component of price and that percentage service gratuities have high evaluability. Accordingly, divergences of a percentage surcharge from the standard 15 percent should strongly affect consumers' deal evaluation for partitioned menu prices with service gratuities modestly above and below the standard 15 percent tipping rate giving rise to unfavorable and favorable perceptions of the surcharge respectively.

Conversely, when restaurants consolidate the service charge into the food price, the size of the menu price increase is masked by the presentation format.

Moreover, it is often difficult for consumers to evaluate food prices on the menu because contextual factors such as description complexity, reputation of the chef, or restaurant ambiance could all contribute to a less-defined reference price range for even a common dish (McCall & Lynn, 2008). As a result of the opacity and ambiguity associated with consolidated presentation of the menu price, divergences of price increases from the standard 15 percent should have little impact on consumers' deal evaluation for service-included menu prices. In sum, service charges are generally more evaluable than are menu prices and this means that service charges will be perceived as offering greater deal value than comparable price increases to include service when the service charge/price increase is less than the standard 15 percent and vice versa when it is greater than 15 percent.

Therefore, we propose that:

> *H1: Menu prices with a percentage service gratuity above (below) the standard 15 percent will be evaluated more (less) favorably than equivalent service-included menu prices.*

The previous analyses presumed that service charges are specified as a percentage of the bill rather than as a dollar amount. However, in cases, like brunches or *prix fixe* menus, where there is only one bill amount per-person it is feasible to specify service charges in dollar or percentage terms. The choice between these presentation formats can also be informed by a consideration of price evaluability effects. Reframing a percentage service gratuity into a corresponding dollar service gratuity is likely to reduce the evaluablity of the surcharge because there is no straightforward, dollar-denominated standard of comparison. Consequently,

consumers' overall price evaluations are less likely to be influenced by a dollar surcharge than by a percentage surcharge of comparable magnitude. As a result, on average, consumers exposed to a dollar service gratuity deviating from 15 percent should have less polarized deal evaluations of the brunch or *prix fixe* menu price than those exposed to an equivalent percentage service gratuity. We hence hypothesized that:

> *H2: Brunch or prix fixe menu prices with a percentage service gratuity below (above) the standard 15 percent will be evaluated more (less) favorably than those with an equivalent dollar service gratuity.*

We tested the above hypotheses with an online experiment described below.

METHOD

Participants

Six hundred and six consumer panelists from a national marketing research company participated in our study to earn incentive points upon completion of the online experiment. One hundred and six of them did not go through the entire experiment process and were excluded from the analyses. Of the 500 participants included in the study, 42 percent were men and 84 percent were Caucasian. Their ages ranged from 16 to 82, with the average being 40. Two percent of the participants had some education, 21 percent were only high school graduates, 41 percent had some college, 24 percent were college graduates, and 11 percent had done post-graduate work. Eighteen percent of the participants reported a household income less than $25,000 a year, 40 percent reported between $25,001 and $50,000, 31 percent reported

between $50,001 and $100,000, and 11 percent reported more than $100,000 a year. Their average dining out frequency at full-service restaurants was four times per month, with a high response of 56 times per month. Thus, the sample represented a diverse group of restaurant patrons.

Design and Procedure

The experiment was a 2 (surcharge level: 12 vs. 18percent) x 3 (surcharge format: percentage vs. dollar vs. built-in service gratuity) between-subject design.[1] To be clear, the built-in service gratuity was incorporated into the menu price, which was 12 or 18 percent higher than that in the other conditions. We chose 12 percent and 18 percent to represent relatively commonly encountered gratuity levels with the same modest deviation from the 15 percent tipping standard.

Participants read a scenario where they were asked to imagine that they are dining with a friend before seeing a Broadway show at a table-service restaurant with a good online review on customer service. Next, participants saw a three-course pre-theater dinner menu that included price information and stated "No tips allowed." Participants were randomly assigned to receive one of six menus that differed only in surcharge level and format as described above and were asked to place a hypothetical

[1] In the original design we included another surcharge level at 23 percent. However, separate ANOVA analyses comparing 12 percent surcharge with 18 percent surcharge, 12 percent surcharge with 23 percent surcharge, as well as 12 percent surcharge with 18 percent and 23 percent surcharges combined produced similar results. We hence used 18 percent alone to represent the surcharge level above the 15 percent tipping rate in the final report of our findings for the sake of brevity. Dropping the 23 percent respondents reduced the number of observations from 500 to 319.

order of one selection from each course. Note that no checks on the realism of this scenario were obtained because we were not attempting to replicate a real dining experience, but simply trying to provide a common context for subjects to look at the menu and evaluate its deal value. A realistic dining experience was not needed to test our hypotheses about the cognitive effects of the surcharge manipulation on perceptions of deal value.

After placing their hypothetical orders, participants proceeded to the next screen and responded to several questions about the menu. First, participants were asked to indicate their agreement with the statement "The pre-theater dinner provides good value for money" on a Likert-scale ranging from 1 (very much disagree) to 7 (very much agree). Then they accessed the perceived deal value of the pre-theater dinner on a seven-point scale anchored by "bad deal / good deal." A deal evaluation index (Cronbach's $\alpha = 0.84$) was constructed by averaging participants' responses to these two questions (adopted from Burman & Biswas, 2004).[2] To control for the effect of service quality on value judgment, we also asked participants to rate their expected level of service quality on a nine-point scale anchored by "very poor / very high." After these ratings, participants answered other questions used for exploratory purposes not relevant to this paper. At the end of the experiment, data about

[2] Participants were also asked to rate the pre-theater dinner on a 7-point scale from 1 (very cheap) and 7 (very expensive). We did not include this item in the deal evaluation index because scale reliability test showed that the corrected item-total correlation for this measure is 0.37, lower than the 0.4 threshold. In addition, when this item is deleted, the alpha goes up from .73 to .84.

participants' demographic characteristics were collected.[3]

RESULTS

We initially analyzed participants' deal perception using a full factorial design of the general liner model (GLM) with the expected level of service quality as a covariate. However, the covariate turned out to be non-significant ($F(1, 312) = .642$, $p = .424$). We hence dropped the service quality perception measure and conducted a full 2 (surcharge level: 12 vs. 18 percent) x 3 (surcharge format: percentage vs. dollar vs. built-in service gratuity) between-subject ANOVA on the deal evaluation index. The mean values of the deal evaluation index for each condition are summarized in Table 1. As expected, we found a significant two-way interaction between surcharge level and surcharge format ($F(2, 313) = 4.482$, $p = .012$). Our two hypotheses were tested in a series of interaction contrasts and planned comparisons using the error term from this omnibus ANOVA (Keppel & Wickens, 2004).

Insert Table 1 about here

Deal Perception: Percentage vs. Built-in Service Gratuity

To test Hypothesis 1, we considered percentage and built-in service gratuity

[3] In a preliminary analysis, none of these demographic characteristics turned out to be significant covariates so we only used them to describe the sample.

conditions alone and analyzed the deal evaluation index as a function of surcharge level and surcharge format. The results yielded a significant effect for the two-way interaction only ($F(1, 313) = 8.861$, $p = .0015$, one-tailed).

As shown in Table 1, menu prices with a percentage service charge led to a better deal perception ($M = 4.57$) than equivalent service-included prices ($M = 3.92$) when the gratuity level was below the standard 15 percent ($F(1, 313) = 5.801$, $p = .008$, one-tailed). However, the relationship was reversed when the gratuity level was above the standard 15 percent ($M = 4.05$ vs. $M = 4.47$; $F(1, 313) = 3.131$, $p = .039$, one-tailed). Therefore, Hypothesis 1 was supported.

Deal Perception: Percentage vs. Dollar Service Gratuity

To test Hypothesis 2, we conducted a 2 (surcharge level: below vs. above 15 percent) x 2 (surcharge format: percentage vs. dollar service gratuity) ANOVA on deal evaluation indices. This analysis revealed that the interaction between the two factors was consistent with the predicted pattern but was only marginally significant ($F(1, 313) = 1.752$, $p = .093$, one-tailed). Specifically, although participants perceived menu prices with a percentage service gratuity as marginally better deals ($M = 4.57$) than those with a corresponding dollar service gratuity ($M = 4.24$, $F(1, 313) = 1.735$, $p = .094$, one-tailed) when the gratuity level is below the standard 15 percent, there were no significant differences in deal perception between the two surcharge formats when the gratuity level is above the standard 15 percent ($M = 4.05$ vs. $M = 4.18$; $F(1, 313) = .288$, $p = .296$, one-tailed).

On the other hand, as shown in Table 1, simple effect comparisons on each

surcharge format indicated that participants perceived menu prices with a percentage service gratuity below 15 percent (M = 4.57) as better deals than those with a percentage gratuity above 15 percent (M = 4.05; (F (1, 313) = 4.052, p = .002, one-tailed). In contrast, participants exposed to menu prices with a dollar service gratuity reported similar deal perceptions across the surcharge levels (M = 4.24 vs. M = 4.18; (F (1, 313) = .064, p = .400, one-tailed). Thus, as expected, a move from percentage service gratuity toward dollar service gratuity seemed to impede participants' menu price judgment as a result of reduced surcharge evaluability.

DISCUSSION

The main purpose of this study was to examine the effects of service charges versus service-included menu pricing on consumers' perceptions of deal value. We found that when the service component of price was above 15 percent, participants perceived menu prices with an automatic percentage service gratuity as lesser deals than an equivalent service-included menu prices. In contrast, when the service component of price was below 15 percent, participants who saw menu prices with an automatic percentage service gratuity had a better value perception of the deal than did those exposed to corresponding service-included menu prices. This pattern of results supports our argument that percentage service gratuities have greater evaluability than do menu prices.

We also explored the potential faming effect of surcharge format on deal perception for single-priced meals such as brunches or *prix fixes*. We believed that a shift from percentage service gratuity toward dollar service gratuity reduces the surcharge evaluability. Consequently, consumers will perceive a larger difference in

deal value between 12 and 18 percent gratuities than will consumers given the same gratuity levels expressed in dollar terms. A marginally significant surcharge format by surcharge level interaction followed this predicted pattern - we found a significant difference between the two surcharge levels in terms of deal perception when the surcharge was presented as a percent of the bill but not when it was presented as dollar amounts.

As a final note, in the present study, we found that 18 percent and 23 percent surcharge level have similar impacts on participants' deal evaluation. This may suggest that what really matters is the direction, rather than the magnitude, of deviations from the 15 percent tipping rate. However, future studies are needed to further examine the potential magnitude effect of surcharge level on deal perception.

Managerial Implications

The findings of the present research have several managerial implications for restaurant operators in choosing among pricing alternatives to voluntary tipping. Perhaps the most important implication is that restaurant operators should be vigilant about listing service charges that exceed 15 percent separately on the menu. As shown in our study, participants' negative reactions to the higher-than-average service gratuities reduced their deal perceptions on restaurant offerings.

If larger than 15 percent gratuities are necessary, our results suggest that restaurateurs should build all or part of the service gratuity into menu prices. For example, a restaurant positioned on value for the money could set the service charge to 12 percent and build the remainder of the service fee into menu prices. On the other hand, 12 or even 15 percent service charges may send the wrong signal about service

quality for upscale restaurants, so they would probably be better off building all the service charges into menu prices as was done by Chef Keller at Per Se restaurant in New York City (Bly, 2005).

Another way to minimize the negative effects on deal perception of automatic service charges above 15 percent is to list the service charge in dollars and cents. We found that our study participants perceptions of 18 percent service charges as worse deals than 12 percent service charges was diminished when they were expressed in dollar terms. Taking advantage of the lower evaluability of dollar as opposed to percentage service charges in this way would not be practical on normal restaurant menus due to the number of service charges that would have to be listed, but it is a viable option in cases where only one price is charged to consumers, as with buffets or *pre fixe* menus.

Although the current study indicated that restaurants may benefit in terms of consumers' deal perception by separately listing a service gratuity below the standard 15 percent, several caveats are in order. First, we studied U.S consumers for whom the 15 percent tipping norm provides a salient reference for comparison. That standard of comparison is likely to be different in other countries with different tipping norms. Nevertheless, the basic idea that service charges are more evaluable than service-inclusive menu prices should still apply and service charges below local tipping norms should be perceived as a better deal than comparable service-inclusive menu pricing with the reverse being true of service charges above local tipping norms.

Second, we controlled participants' service quality perception by explicitly telling them that the service quality of the restaurant is satisfactory. In reality,

however, stating service charges below the standard 15 percent may bring about negative expectations or perceptions of the service quality due to consumers' positive price-quality association (Rao & Monroe, 1989) and eventually spoil the overall deal perception.

Finally, we examined only one effect of service charges versus service-included pricing – on deal perception. The differences between service charges and service-included pricing may produce numerous other effects relevant to selection between them. For example, service charges are a type of commission that rewards the server for selling. Thus, they may motivate servers to build their sales totals through greater upselling and/or faster service that turns tables more frequently than does service-included pricing (Kwortnik, et al., 2009). Moreover, consumers may find service charges less fair than service-included pricing, because they perceive the former as a mandatory tip and the latter as just another example of the way most things are priced (Wang, 2013). Researchers also need to study these and other potential effects of service charges versus service-included pricing in order to better inform managerial decisions about which alternative to tipping should be implemented if and when restaurateurs decide to abandon voluntary tipping.

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Table 1. Deal evaluation index as a function of surcharge format and surcharge level

	Percentage service gratuity	Dollar service gratuity	Built-in service gratuity
12%	4.57 (n=44)	4.24 (n=61)	3.92 (n=44)
18%	4.05 (n=52)	4.18 (n=56)	4.47 (n=62)

Notes: Mean value of the deal evaluation indices (measured on two seven-point scales) with the corresponding number of observations for each condition (in parentheses) was indicated in each cell.